

MELANCHOLIA CLINICALLY CONSIDERED ESPECIALLY IN ITS RELATION TO LITHÆMIA, BRIGHT'S DISEASE AND GLYCOSURIA.¹

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MELANCHOLIA is a state of mental depression in which the mental pain bears no relation to the supposed cause, and is dependent not so much upon the environment as upon somatic conditions. I do not refer at this time to the melancholia which is frequently one of the stages of mental disorder, for it is well known that this form of insanity may precede or follow a maniacal attack, may usher in paretic dementia, or may occur as one of the phases of circular insanity. My purpose is rather to consider melancholia as a clinical entity, distinct and complete in itself. The all-important symptom in this form of insanity is the mental pain which entirely dominates the will and life of the patient. It may be present in every degree of intensity, and the various arbitrary divisions of this psychosis made by authors are so many expressions of the different degrees of severity of this mental suffering. In simple melancholia the mental pain is pronounced yet decidedly less than that observed in agitated melancholia or in melancholia with stupor, reaching in this last type of the disease the most terrible anguish; the patient remains stupid and motionless because of very horror inspired by fearful hallucinations and delusions, such for example as seeing his family butchered before his eyes, and he being compelled to eat food mixed with their blood.

Melancholia may arise from a delusion, yet more often the misery which these patients suffer, give rise to the delusion. "A saturated solution of grief," says Savage, "causes

¹ Read before the North Dakota Medical Association, Fargo, May 29th, 1891.

as it were, a delusion to crystalize and take a definite form." ²

The nutritive condition of a patient suffering from melancholia is usually very poor; it most frequently occurs in conditions of physical weakness; unquestionably neurasthenia sets up this disordered mental state and be the clinician ever so skillful, he will yet frequently be greatly puzzled to say just where the one pathological process ends and the other begins. "In private practice" says Dr. Spitzka, "melancholia, especially of the lighter grades, is very common, and is not unfrequently treated as 'neurasthenia,'—whatever that may be or may not be—and dyspepsia, and, thanks to the self-limiting tendency of the psychosis, it is frequently cured on either theory." ³

I wish just here to emphasize the necessity for the physician in dealing with this class of cases to be especially on his guard, for it is in this mild form of melancholia that suicidal impulses so frequently dominate the will power of the patient and drive him to his own destruction. It is not an unusual experience to have patients supposed to be hysterical or neurasthenic hang themselves early in the morning before the rest of the family have arisen. Those cases of which we read in the daily papers where some young person has killed him or herself, because of unrequited love, are usually the idle fancy of an enterprising reporter.

"Men have died from time to time, and worms have eaten them, but not for love." It is seldom sentimentalism which kills these persons, but the regnant power of a suicidal impulse, asserting itself in an unrecognized melancholia. Toxic materials in the blood undoubtedly excite this painful emotional state. This mental condition "may consist of a series of fits of mental depression of greater or less intensity, separated by periods of mental health." ⁴

Aside from the mental pain there are two other factors in this depressed mental state which cannot be overlooked;

² Insanity. Geo. H. Savage, M.D., p. 152.

³ Manual of Insanity. 2d Edition. Spitzka, p. 148.

⁴ Insanity. Geo. H. Savage, M.D., p. 163.

viz., insomnia and fixed ideas. The former is a most distressing symptom, and seems to bear a direct relation to the psychical distress; despondency and fixed ideas are usually, at least in my own experience, preceded by sleeplessness. In agitated melancholia the patient is unable to sleep because of his restless and agitated condition, while on the other hand many patients lie quietly without losing consciousness, although experiencing great mental suffering. Dr. Savage describes a patient of this class "who for three months was never once found asleep by the night watch, who visited her hourly, and on her recovery she asserted that she never lost consciousness during the whole three months." In many cases the patient complains of a sleep, broken and fitful, disturbed by most frightful dreams, and of awaking in the morning depressed and unrefreshed.

It is very probable that the lack of nourishment during the night, coupled with the unrefreshing slumber, causes an unstable nervous state which allows the suicidal impulse to assert itself in this time of especial weakness; for as already stated, it is in the early morning hours that these patients usually commit the overt act. The fixed ideas from which melancholiacs suffer are most distressing to the patient and at the same time most interesting from a clinical standpoint. As an example a patient said to me recently that he was constantly tormented with the idea that he would go insane; in his most depressed moods it was never for a moment absent from his mind, except during sleep which was restless and disturbed. This idea was, after some months, supplanted by a most persistent suicidal impulse from which he now suffers. Another patient, a woman, told me that suddenly, a few months ago, while partaking of the Sacrament, there came into her mind an oath which has since tormented her night and day, for she has slept but little. She seems constantly in a fit of abstraction due to the fact that her mind is continually dwelling on this blasphemous expression.

This patient has suffered from attacks of precordial fright and has marked suicidal tendencies. As the patient improved the fixed idea gradually disappeared.

Under the three clinical groups previously mentioned all cases of melancholia cannot be clearly brought for the reason that there are no hard and fast lines along which a classification of the distinctive types of this psychosis can be made, so insensibly do the various forms merge the one into the other. To the different varieties of mental depression already described I would add the further one suggested by Bevan Lewis, viz., melancholia with delusions including the hypochondriacal form. The reason for this is evident from the fact that there are many cases of melancholia attended with delusions which are characterized by neither agitation nor stupor.

The distinguishing feature in simple melancholia is psychological pain which is not usually associated with obvious disturbance of the intellect. The patient is despondent, irascible, suffers from fits of abstraction during which his painful emotions control his life and thought to the entire exclusion of everything else; he is uncommunicative and sleepless; his appetite is impaired, digestion and assimilation poor, tongue coated, bowels constipated, his cerebral reflexes are dull, and he is usually indifferent to his surroundings.

In the mildest forms of simple melancholia there may be present only depression, associated with fixed ideas, and usually accompanied by insomnia. I have under my care at the present time a young man actively engaged in business who, to an unpracticed eye seems in perfect health, who yet is depressed, sleepless, and suffers constantly from fixed ideas of a suicidal nature. These various groups of melancholia are best illustrated by typical cases.

Mrs. H., English, age twenty-five years, was until three weeks ago perfectly well; at that time she became greatly depressed and has ever since suffered from a loss of appetite; she complains of no actual pain, but says she has constantly a bewildered feeling in the head, is at times exceedingly nervous and restless, and her despondency is greatest during the early morning hours. She suffers great mental pain which is much out of proportion to her physical symptoms. She dares not be left alone lest she be forced to take

her own life; this fear is constantly with her, the last thought at night and the first when she awakes in the morning. She cannot concentrate her mind upon anything because this fearful apprehension that she may do herself violence dominates all her mental processes. When the mental pain is most pronounced she becomes nervous and excitable, experiences difficulty in breathing, her face flushes, and she feels an almost uncontrollable impulse to break out into a frenzy and to tear and destroy everything within her reach, also to scream at the top of her voice. She is extremely apprehensive that when one of these mental storms sweeps over her she may lose all control of herself and do some serious injury either to herself or to others. This lady has undoubtedly a nervous diathesis, has no pronounced insomnia, no pain or post-cervical ache, no illusions, delusions or hallucinations; the one feature of her case is its mental pain.

Mr. J., American, thirty-three years of age, began to feel depressed about the first of January of the present year, this being the seventh attack of the kind through which he has passed. His bodily nutrition is much impaired, his appetite being fitful and very irregular.

He sleeps well during the first part of the night, but wakens very early, usually unrefreshed; his depression is greatest in the morning. The physical symptoms of which he complains most are the post-cervical ache and pain in the back and vertex. His memory is very poor, and he has much difficulty in concentrating his mind upon any desired subject. When most despondent he dwells constantly upon his sickness, and is unable to rid himself of the idea that he will never recover.

The intensity of the fixed ideas in this patient is not so marked as is usually found in this form of insanity, and it is especially worthy of note that the mental pain is not of such a character as yet to have caused a development of the suicidal tendency, which I consider the most serious feature of simple melancholia.

The chief characteristic of this type of melancholia is its resemblance to neurasthenia or to ordinary hypochondriasis, and this patient would usually be classed as a neurasthenic, but in reality the case is a typical one of simple or reasoning melancholia (*Melancholia sine Delirio*). It will be

observed that there are no illusions, delusions or hallucinations present, as I have already intimated. A mistake upon the part of the physician in its diagnosis might be fatal to the patient, for it is especially in this mild form of the disease that the suicidal tendency often unexpectedly develops.

Mrs. W., aged thirty-five, married, has nine children, the youngest being four months, the oldest thirteen years. The present trouble appeared about three weeks ago; it began with insomnia, what little sleep she obtained being disturbed by frightful dreams. This patient's mind dwells upon a certain thing which she refuses to disclose except to say that it is very bad. She has paroxysms of nervousness at which times she feels like jumping up and screaming; she suffers from suicidal impulses and believes she is becoming insane. She has also periods of weeping due to the belief that she will never recover, and that her children will be left motherless.

I append two cases which are illustrative of the form of melancholia which is attended by delusions or hallucinations.

Mrs. G., aged 33, German, no children, but two miscarriages; no mental disease in the family. Her present trouble dates from last November, when, one day during the communion service, she was tempted to utter an oath. In the afternoon the same thought came to her, accompanied by strange feelings, and in the evening as she was reading in the Bible, the same oath came into her mind again.

She believes that she has committed the unpardonable sin. She had had no insomnia previous to the beginning of this trouble, nor was she unable to sleep at the commencement of the attack, at which time neither were the bad thoughts present with her all the time. Eventually, a period of sleeplessness came on which lasted about six weeks, during which she could not rest without the aid of some hypnotic. When she did sleep it was to be troubled with horrible dreams and to awaken unrested. Waking, her first act was to pray that she might get these horrible thoughts out of her mind. At the time the insomnia came on she also began to have pain in the back and at the nape of the neck. At first she felt worse in the morning, but

now the bad feelings persist all day. She has paroxysms of nervousness, when she feels that she must jump up and swear. She thinks that her friends have not treated her rightly, is jealous of her husband, has a nameless dread of impending evil and is afraid to be left alone. One morning between seven and nine o'clock, while sitting with her sister, she was seized with a strong impulse to hang herself. This desire to kill herself she believes comes from Satan. Obscene words come constantly into her mind. She has hallucinations of the sense of smell, perceiving an odor of sulphur and blood; she also has hallucinations of sight, seeing snakes and other repulsive creatures. Satan appears to her almost every night telling her that she is lost.

My second case illustrative of melancholia with delusions or hallucinations is that of a young American clergyman, 25 years of age. Three years ago, while greatly depressed in health and suffering from persistent insomnia, he passed through a period of great despondency; the attack came on during Lent and lasted six weeks. The present attack, for which the patient has just consulted me, also appeared during Lent. It is well to note here that both these attacks developed during Lent, which was most rigidly observed by him. He complains of extreme insomnia and of a feeling of weight in the whole head, but especially at the base of the brain.

In the morning there is a great deal of nervousness and jerking of the muscles, with marked restlessness. The cerebral reflexes are dull; the face, while expressionless, shows marked evidence of mental pain. He has always been inclined to fits of brooding or abstraction, but these have been especially noticeable since this depression has come upon him. He has no illusions or hallucinations; he believes that he has a disease like leprosy and that his body is dying piecemeal; he thinks his voice and blood badly contaminated by the leprous poison; any little eruption appearing on the skin he attributes to this taint; he has begged that his razor might be taken from him, evidently fearful that he may do himself bodily harm.

He attributes this physical collapse to the fact that his soul has been dead for the last three years; he did not accept his moral probation, which now is forever past, and he is lost. He says that the chief difference between his present attack and that of three years ago is that the previous one was characterized by great anxiety of soul, while at the present time his soul is dead and he is perfectly indifferent to his lost condition. He calls his virtues negations, be-

lieves that all that is good in him has been destroyed and accounts for his inability to pray by his having no soul.

In the hypochondriacal form of melancholia the delusions are not psychical but bodily in character. A case I remember to have seen in Baltimore was that of an old colored woman whose delusion was that there was a lizard in her stomach. She was greatly depressed and was continually crying and wringing her hands.

For the two cases illustrating respectively agitated melancholia (*Melancholia Agitata*) and melancholia with stupor (*Melancholia Atonita*), I am indebted to Dr. R. M. Phelps, First Assistant Physician of the Second Minnesota State Hospital at Rochester.

The first is that of Mrs. A. B., married, aged 45, having an uncle insane, but her first attack. Admitted to the hospital March 29, 1889.

The history accompanying the patient was to the effect that the trouble appeared some months before; that after a month she began to improve, but that, during the four weeks preceding her admission, she had grown steadily worse. She had been very despondent upon religious subjects, though not a member of any church; had spent much of her time weeping and wringing her hands, thinking herself eternally lost. She is said to have meditated the destruction of her children.

For several days after her admission to the Hospital she would eat little or nothing, and as she would not promise to eat, she was fed with a tube. She still insisted that she was very wicked and deserving of hell. During the summer of 1889 and the winter of 1889-90, the patient continued very obstinate about taking food, often being fed with a tube; she was exceedingly agitated, being on her knees a great part of the time; she was continually out of bed at night, and during a severe attack of erysipelas it was found necessary to keep her tied in bed in order to restrain her. She also developed decided suicidal tendencies, trying to jump from windows and to gain access to poisonous medicines. During the past year her behavior has been somewhat more quiet; she makes fewer attempts to destroy herself, is more easily fed and less agitated in manner; she still, however, refuses to sit down, has never been known to smile and is usually found standing with head hanging, looking at the floor and wringing or picking her hands.

She will only talk of her desire to go home and of her ill deserts. She never reads and is very careless about her dress; her mental condition remains unchanged.

The case of melancholia with stupor is that of a young married woman, aged 24, admitted to the Hospital in May, 1889, with her first attack; the cause was puerperal. The child was born in February and about the first of April, after some preceding symptoms of irritability, she was quite suddenly seized with the symptoms of acute mania. She was violent only for a day. On her admission she would not talk willingly on any subject, and her occasional answers showed an incoherent condition, with delusions. She denied ever having had a baby. Her past history showed her to have been quick tempered and occasionally hysterical. An aunt had been insane.

This woman remained at the Hospital until the middle of December, 1889. Up to the first of that month she seemed to be lapsing more and more into a profound stupor which was almost dementia. She could not be gotten, by ordinary means, to show any interest in anything and would scarcely make a move voluntarily. She had to be dressed, undressed, put to bed and taken to meals. She would say nothing, do nothing, but remain quietly wherever she might be placed.

In spite of constant tonics, she became more and more emaciated; her head bent forward until it rested upon her chest, and it was necessary to place cushions in her chair and behind her to prevent bed-sores. In October she was visited by relatives but would pay no attention to them, and seemed in almost total ignorance of what they said to her.

Quite suddenly, early in December, the patient came out of this profound melancholia, and within a week reached a perfect ability to speak and act as a rational person. She described herself as under a spell, her will seemingly paralyzed and she unable to move even when she desired to do so. A letter written by her at this time best describes her condition.

[LETTER.]

December 1st, 1889.

DEAR MOTHER:

If anyone had said in my hearing a month or six weeks ago that I should be writing a letter to you to-day, I should have thought they were crazy. No longer ago than that I was but very little better off than when A. was here.

I suppose she has told you of the condition she found me in. Oh, mother, it has been awful, and I don't understand

it at all. During all the past summer I have had no mind of my own at all. I knew all that was going on around me and realized keenly the condition I was in, but some force held me down. Just think, mother, I could not talk and they fed me like a baby and had to take me to the water closet or I would muss myself. Oh, it was awful! You all may think that I could have helped it, and it even seems to me now that I could, too; but I know that at the time I could not. And I was so afraid of everything and everybody, they would lay a paper on my lap and it would stay there until some one took it away; I did not dare to touch it.

But I am sure that I am getting better of all that, though I am far from what I ought to be. J. is coming to get me soon and I hope I shall get to be all right again, as I have something to live and work for."

Delusional, agitated and stuporous forms of melancholia are so pronounced in their clinical characteristics as to need no further description. The melancholic triad, viz., mental pain, post-cervical ache and insomnia, described by Dr. Landon Carter Gray has been usually present in my cases; it is not always seen, however, in the very mildest forms of the disease. That manifestation of a nameless terror, melancholic frenzy (*Raptus Melancholicus*), justly regarded as an episode simply of this affection, is but an intensification of the misery occurring in the agitated and stuporous forms of this psychosis.

Hallucinations are said to be more frequent in melancholia than in any other form of insanity, with the single exception of paranoia.

Voices are constantly whispering obscene words, oaths and threats; visions most frightful are to them unquestioned realities; associated with all these are delusions of the most distressing nature, especially of persecution. The constant presence of these as realities before the mind of the patient keeps him in a state of perpetual terror, at times so intense as to cause an outburst of melancholic frenzy. These attacks are preceded by distressing sensations in the heart region, said to be due to a functional disturbance of the pneumo-gastric and vaso-motor centres, which are known as precordial fright. These conditions are seldom encountered even in asylum experience.

While the relation existing between lithæmia and neurasthenia is an interesting one, it is most of all practical. Is this relationship primary or secondary in character, or may it be both?

If the latter, how may we determine when it sustains the relation of cause, when that of effect to the genesis of this affection? All successful therapeutic endeavor must rest upon a clear conception of two basic principles: first, what the so-called lithæmic state really is; second, does it cause melancholia, and may it also be associated with the idiopathic form of this disease as a purely secondary manifestation? "In certain states of the system," says Bartholow, "characterized by deficient oxidation, urea is not sufficiently formed and instead uric acid, a lower grade of oxidation and a product of the disintegration of albuminoid substances, results. When albuminoid matters are taken in excess of the power of the system to convert them, or when the supply of oxygen to the blood is deficient for any reason, urea is not found but uric acid and urates are abundantly excreted by the urine."⁴ Dr. Murchison suggested for this condition of hepatic incompetence, with its group of associated symptoms, the name lithæmia; Flint had, however, previously described the same clinical concept under the head of uricæmia, and quite recently Von Jaksch designates it by the name of uric-acidæmia, which latter term receives the endorsement of Dr. A. Haig. The disturbing influence of uric acid on the higher psychical centres is said to give rise to melancholia. Dr. Haig believes that mental irritability and depression, with their frequently resulting murder and suicide, arise from an excess of uric acid in the blood.⁵ Recent investigations have thrown much light upon this rather obscure subject and it is now certainly known that there are other factors as potential for harm as uric acid and the oxalates which exercise such a pernicious influence upon nerve centers and which may

⁴ Lithæmia. By Roberts Bartholow, A.M., M.D., LL.D. System of Medicine. Pepper, Vol. II., p. 969.

⁵ Uric Acid in Diseases of the Nervous System. A. Haig, M.A., M.D. Brain. 1891, p. 74.

give rise to the melancholic triad. "This view," says Dr. Porter, "is largely sustained by the fact that between the serum-albumen, as introduced into the body, and its most complete form of oxidation—urea—twenty-eight nitrogenous compounds have already been discovered and traced into the urine, some of which are deadly poisons. These poisonous elements circulating in the blood act differently upon the various parts of the nervous system and functions of the body."⁶

"I believe," says the same writer, "that all of that host of vague and often ill defined 'bilious' (lithæmic) and 'neurasthenic' symptoms are best explained by the passage into the general circulation and the incomplete elimination from the body of an almost innumerable number of ptomaines and leucomaines, products of incomplete nitrogenous oxidation." So, therefore, we can no longer regard uric acid as the only agent in the causation of that nervous irritability and mental depression so characteristic of the lithæmic state, but must consider as equally potential and pernicious the ptomaines and leucomaines which have escaped the "peptone-destroying action" of the hepatic cells. Melancholia due to the toxæmia which arises from the so-called lithæmic condition is no longer a matter of doubt, but an established fact. Dr. Mickle well says that some of the mental phases observed in general paralysis, such as the hypochondriacal or melancholic, may be accounted for by alterations in the constitution of the blood. "In relation to this, we may bear in mind the mental coloring usually associated with states of toxæmia; as, for example, the depression attending cholæmia; the ill temper, anxiety and depression of chronic lithæmia, and the apathy and unconcern of pyæmia."⁷

"Since I first wrote on uric acid and mental depression," says Dr. A. Haig, "I have heard from Professor C. Lange, of Copenhagen, that he has, for a long time, observed and

⁶ Digestion, Assimilation and Oxidation : Their Normal and Abnormal Conditions in relation to Health and Disease. By William Henry Porter, M.D. The Medical News, Jan. 10th and 24th, Feb. 28th, 1891.

⁷ Mickle on General Paralysis of the Insane. 2d edition, p. 353.

has written a monograph concerning certain conditions of periodical depression, which he connects with the uric acid diathesis, and treats successfully by a diminution of meat food and certain rules as to exercise, etc. I have also previously mentioned that Dr. Broadbent notices the frequent association of melancholia and mental depression with high tension of the pulse, and records the successful treatment of some of these cases by milk diet. . . . In conclusion, I will say that I look upon these functional disorders as the result of the vascular conditions produced by uric-acidæmia, the exact nature of the disorder—whether headache, epilepsy, or mental depression—being determined partly by the intensity of the uric-acidæmia (lithæmia) and partly by the anatomical and physiological relations of the vessels and nerve structures concerned, and that these latter, being inherited, determine in several succeeding generations the nature of the disturbance which uric-acidæmia will produce.”⁸

In my opinion, idiopathic melancholia is the more usual form of the psychosis, and the presence of uric acid and other evidences of incomplete oxidation of the albuminoids, associated with this affection is usually secondary in character. “I am convinced,” says Dr. Gray, “that this possibility, namely, that uric acid in so-called lithæmia may be a product as well as it may be a cause, should never be lost sight of in the therapeutics of this affection.”⁹

The symptoms of nervous irritation resulting from this form of toxæmia are truly legion; chief among them are vertigo, sleeplessness, mental depression, which may gather force as the condition becomes more pronounced and develop into a well marked melancholia, amblyopia, noises in the ears, most probably caused by the lithæmic pharyngitis, which extends to and involves the Eustachian tube.

There may be associated with the pharyngitis a laryngitis due to the same cause; Dr. J. E. Schadle informs me

⁸ Uric Acid in Diseases of the Nervous System. A. Haig, A.M., M.D. Brain, 1891, pp. 74, 97.

⁹ The Nervous Symptoms of So-called Lithæmia. By Landon Carter Gray, M.D. The New York Medical Journal for Jan. 16th and 23d, 1886.

that he has seen quite a number of these cases and that they resist all treatment but that which is directed against the lithæmic condition. I have in one instance observed great sensitiveness to odors; sleeplessness resulting from a nervous irritation caused by the odor given off through the steam heating apparatus. Neuralgias, paræsthesias, vasomotor disturbances and not infrequently fevers are due to lithæmic toxæmia. Among the many curious manifestations of disturbed nervous function growing out of the lithæmic state, I recall one case which possessed some features of unusual interest.

The patient was a very intelligent lady who suffered from a hemi-paræsthesia of the entire left side of the body, associated with hallucinations of hearing of a most pleasurable nature. Some years previous she had, while traveling in Europe, especially enjoyed the singing of the choir boys in the great cathedrals. While suffering from this hemi-paræsthesia and the associated mental depression and irritability, she was greatly startled by hearing the same voices chanting the same sacred hymns to which she had listened with so much delight years before. Under the usual routine treatment she speedily recovered.

Notwithstanding the assertion of Sankey "That I do not consider the true pathology of insanity to have any necessary relation to kidney disease; but when kidney disease is found it shows there has been an alteration of some kind in the quality of the blood,"¹⁰ or that of Bucknill and Tuke that "In the whole course of our practice we have never met with an instance of decided Bright's disease among the insane,"¹¹ or the opinion of Griesinger that any casual relation between Bright's disease and insanity is extremely rare, I do not believe that the importance of the relation between insanity in its various forms and Bright's disease has, even by alienists, been properly appreciated.

Dr. Blackburn, special pathologist to the Government Insane Asylum at Washington, D.C., records in the Annual Report of that Institution of 1889, the result of his examina-

¹⁰ Lectures on Mental Diseases; Sankey, p. 246.

¹¹ Bucknill and Tuke on Insanity, p. 435.

tion of the kidneys in 263 cases of insanity, and found 43 cases "in which the deviation from the normal was sufficient to constitute disease, including cases of senile atrophy of pathological degree." Dr. Blackburn assures me that he believes "the errors of judgment in the examination of the 263 cases studied have been mainly in attributing too *much* to *post mortem* changes rather than too little." Dr. E. A. Christian, in an exceedingly able article on Chronic Bright's Disease in its Relation to Insanity, says, "Out of a total of upwards of 2,600 admissions to the Eastern Michigan Asylum, thirty-seven cases have been collected in which the appearance of grave disturbances of nutrition have been coincident with a discovery of albumen and tube casts in the urine. In only about a dozen of these cases could it be said that the mental manifestations were not dependent upon or modified to some extent by the renal disorder." Dr. Alice Bennett, in a recent paper on Insanity as a Symptom of Bright's Disease, records more than fifty cases arising from this constitutional condition.

It matters little what may be our views of the pathology of Bright's disease, whether we accept the theory of Da Costa that it originates in a lack of nutrition of the cells of the sympathetic ganglia, or that of Gull and Sutton that the kidney affection is but an expression of a general "arterio-capillary fibrosis," or whether we agree with Meigs that it is primarily vascular, *i.e.*, an endarteritis, the renal disease being but a local manifestation of the general condition; so that we fully appreciate its direct, causative relation in the production of the insane state. Dr. Christian very happily divides the insanity of Bright's disease into two classes: "The uro-toxic and the vascular, according as the one or the other set of symptoms predominates."

Under the uro-toxic class "are included not only those undoubted cases of uræmic insanity in which the symptoms are of the nature of delirium, the result of blood poisoning, but also those cases in which the mental perturbation is as much the result of a lowered state of bodily nutrition as of the direct action of poisonous matters upon the nervous

centers."¹² It is, moreover, true that this impaired state of bodily nutrition is as likely, or even more likely, to be present in those cases of chronic Bright's disease where the structural changes occurring in the vascular system are most pronounced. As melancholia is invariably associated with a lowered bodily nutrition and frequently results from such a condition, it is easily seen that this form of insanity, occurring in connection with chronic Bright's disease, may be the expression of a uro-toxic condition, or it may equally arise from a primary pathological process of the blood vessels of the body; either of which sources of origin are in harmony with our present ideas of the pathology of chronic Bright's disease.

In cases of Bright's disease, associated with melancholia, Dr. Bennett calls attention to one feature which she considers diagnostic.¹³ It is, to use her own words, "The sense of impending danger, overwhelming fear of some threatening calamity, which inspires the one irresistible impulse to 'get away' which dominates the individual for the time, and under the influence of which he often jumps out of the window." With the absoluteness of Dr. Bennett's conclusions I cannot agree; for in simple melancholia, unassociated with any lesion of the kidneys; in glycosuria, attended with melancholia, and in that variety of mental disorder described by Clouston as "half delirium and half mania," due to an intense degree of uræmic poisoning, I have seen this *sense of impending danger*.

In those cases of apparently simple melancholia which do not yield to the usual methods of treatment, it is of the utmost importance to make a careful investigation for the presence of albumen and casts, which, if found, will afford an ample explanation for the persistent character of the disease.

I have specially called attention to this relation which exists between melancholia and Bright's disease, because

¹² Chronic Bright's Disease (Arterio-Capillary Fibrosis) in its Relations to Insanity. By E. A. Christian, M.D. The Journal of the American Medical Association, March 23, 1889.

¹³ Insanity as a Symptom of Bright's Disease. By Alice Bennett, M.D., Ph.D. Medical Standard, November and December, 1890.

to you, as general practitioners, is given the first opportunity for the investigation of these cases in their inception. It will devolve upon you to establish a prognosis which does not hold out delusive hope, while you may, at the same time, afford temporary relief by proper therapeutic measures.

The relation between melancholia and glycosuria is much more intimate than that between Bright's disease and melancholia. Clouston describes two cases, both melancholia, which were associated with glycosuria.¹⁴ These had delusions of poverty, were not inclined to eat and were wanting in natural affection. Dr. G. H. Savage believes melancholia to be the usual form of insanity, occurring with diabetes.¹⁵ It has been his observation that the diabetic symptoms disappear in part, or whole, during the period of mental derangement, there seeming to be a sort of alternation between the two conditions. In his experience he has seen acute diabetes replaced by acute melancholia, "this latter giving place to diabetes, which once more had been replaced by temporary mental depression." He believes "that similar causes might give rise to either insanity or diabetes; that diabetes occurred in the same families as did insanity and that there might be an alternation, so that insanity occurred in the one generation and diabetes in the next; again, in the diabetes itself the symptoms, one or all, might be replaced for a longer or shorter time by mental symptoms."

A case in my own practice was that of M. A. This patient when he first consulted me said that he was in perfect health, aside from an unreasoning fear of being alone. He never came to my office unaccompanied, insisting that he was afraid something would happen to him before he could reach home. As I had frequently found this morbid fear associated with the neurasthenic condition, I at first considered it but of slight diagnostic importance, but when I found that it did not give way to the usual remedies, I became apprehensive and instituted a careful investigation,

¹⁴ Mental Diseases; Clouston, p. 411.

¹⁵ Diabetes in Insanity; Dr. G. H. Savage. The Review of Insanity and Nervous Diseases, March, 1891.

which revealed to me the true nature of the disorder. The patient was an American who had been perfectly well until the beginning of the present trouble three years ago, which seemed to him to have had its origin in a drunken bout. His sleep is exceedingly good, his appetite is excellent, though he drinks but little water. He has, at times, felt in a bewildered state and has suffered from a bad feeling at the base of the brain; again, he would be for weeks free from any unpleasant symptoms whatever. He is very restless, while a little unusual exertion quite exhausts him; the ascent of a flight of stairs causes inordinate action of the heart and increases respiration to a marked degree. Lately he has not been able to do any manual labor without utter exhaustion. He voids about two quarts of urine daily, which his wife says is thick and frothy when allowed to stand. It has a specific gravity of 1028-1026, after using the yeast test. The presence of sugar is shown by both Fehling and the yeast test. He says there is a thick, tenacious mucus with a sweetish taste constantly in his mouth. For the last two months he has done no work, but has yielded to the morbid fear which has possessed him,—that of some impending evil, or that he may become so despondent as to do himself violence, of which he lives in a constant state of apprehension.

The history of this case demonstrates the necessity of a discrimination between the morbid fear accompanying a disturbed functional condition and that of melancholia, which may be an indication of a grave constitutional disorder.

There is no reason why simple melancholia should not be treated at home. It is of the utmost importance to remember the suicidal tendency which is so characteristic of this variety of melancholia, and which constitutes its chief danger; for if these cases are kept from self-destruction they always recover. The delusional, agitated and stuporous forms of this psychosis can usually be more successfully cared for in an asylum. In those cases where the suicidal tendency is pronounced, it is good therapy to give them in the morning as soon as they awake, some nourishing food

which seems to relieve the nervous instability which is so characteristic of the early morning hours. Over feeding, massage and an abundance of fresh air, together with such hypnotics as chloralamide, paraldehyde, sulphonal, when there is insomnia, and the administration of small doses of Squibb's aq. ext. of opii constitute the chief therapeutic measures indicated. I no longer rely upon the use of mineral acids and the mercurials in the treatment of lithæmia. I believe it to be good practice to eliminate the old bile from the system by the use of a brisk mercurial purge; then the patient should be placed upon a strict nitrogenous diet, requiring him to be in the fresh air as much as possible, not alone for the sake of exercise, but for the oxygen which is thus obtained and which this class of patients so greatly need. I have found the use of oxgall, as advised by Dr. Porter, to be of especial value in this condition; adding, should the patient be constipated, a little aq. ext. of cascara sagrada. The treatment of melancholia resulting from chronic Bright's disease and glycosuria resolves into simply a treatment of the constitutional disorder.

HEMICRANIA WITH OPHTHALMOPLÉGIA BILATERAL.

In the "Bulletino delle Scienze Mediche," for Feb., 1891, Dr. Ignazio Cantalamessa, of Bologna, after describing very minutely a case of hemicrania, arrives at the following conclusions:

1. That ophthalmoplegia is not always unilateral, but may sometimes be bilateral.
2. That in some cases the attacks present two periods; the first constituting a group of true attacks occurring in the winter season; the second constitutes attacks occurring in the summer season, which are of relative calmness followed with the return of winter by severe attacks.
3. That hemicrania ophthalmoplegia may be associated sometimes with paralysis of other nerves, as in the author's case, where the seventh nerve was implicated.
4. That it may be associated with respiratory arrhythmus.
5. That the case in question was dependent upon hysteria.

W. C. K.